

‘Burt-on-line’: Incorporating videoconferencing into the School of Health e-family of technologies

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Background and Rationale

Communication in nursing is, perhaps, the most important tool of the professional practitioner. During training one learns the principles of effective communication and its import to patient care. Likewise, in education communication is the principal means by which one person may bring about change in others. The complexities of communicating become apparent both when addressing distressed patients or inquisitive and challenging students.

The author’s recent past experience in nurse education, utilising the video camera as an adjunct to teaching and learning and also assessing student performance, became the backcloth to this project and the development of the use of videoconferencing in line with the uptake of other contemporary e-technologies. It is worth noting here that videoconferencing equipment already existed within the University but was not being used regularly. Deployment of equipment took place to establish an active videoconferencing studio at the Burton Centre of the School of Health.

The aim of the project is that the School centre at Burton upon Trent will develop effective use of videoconferencing [vc] for the enhancement of learning and teaching, for students and staff alike. This would then offer the opportunity for effective distance dialogue, initially by linking Burton Centre and Boundary House [Walsall Campus] where specific facilities are installed. The success of the project would then permit exploration of further links with other School sites and assist in bridging with NHS Trust hospitals and associated external agencies. The project and its title, suggesting inclusion within the family of e-technologies, is ‘Burt-on-line’ and comes from a development of the original idea mooted by Elaine Ballard [PL and Project Manager] and Peter Wildsmith [SL and Project Leader].

The Innovation

From the outset it was considered appropriate to launch Burt-on-line as a 2 year project in order to establish participating lecturers’ awareness and skill in the use of videoconferencing at the Burton Centre and within the School.

Initially, two lecturers, myself and colleague Bill Speight would manage the conferencing on the respective sites with technical support from CITS team members, Gilly Jones and Alan Bond.

Bob Saunders[Assistant Director, CITS] would oversee technical support service to the project.

The project actively commenced in the Autumn with a vc taking place on October 2nd 2000.

The conference, between two small groups of our pre-registration students, took the shape of a discussion on the fuel crisis [affecting the UK at that time] and its effects upon the National Health Service. This inaugural virtual meeting was successful in bringing

together students of geographically disparate sites in discussion on a topical theme but also offering an additional dimension of the wider perspective being experienced by people in different parts of the West Midlands. From a technical point of view the audio-visual transmission during this vc was fraught by poor ISDN[Integrated Services Digital Network] capability causing some break-up of both sound and vision. It is necessary to reiterate at this point that the equipment in use was existing and relatively dated stock deployed from other Schools within the University; therefore not of the latest specification.

A second vc took place on March 14th 2001 after installation of new circuitry during February. This second conference on the subject of the Electives Module within the curriculum involved students who were accessing the elective choices and their experiences. Improved technology had its impact upon this broadcast which was much more consistent with what one might expect from national television channels. A further vc on March 30th 2001 which was to involve students in discussion with the author failed to meet fulfilment only in as much as the students failed to turn up at the Boundary House venue, apparently due to logistical problems so apparent when a group of students embark on such a closely scheduled itinerary!. As the student group's lecturer had arrived it was an opportunity to introduce another colleague to the facility of videoconferencing and a discussion continued between our respective sites exploring the merits of vc in the nursing curriculum.

Confidence in the use of the technology was now slowly developing and it was appropriate to bring the successes of this 'new technology' to the ears of the School membership.

A presentation to the School was planned and executed by the author at the May 25th 2001 Staff Development Day held at the Bescott Stadium, Walsall. Had the venue hosted a videoconference suite then that may have presented the medium of choice but a power-point slide presentation provided the outline of the project to date followed by a question and answer session. The presentation offered opportunities for some members of staff to consider the use of vc in connection with their own subject remit; an opportunity that was to be further explored.

Support and Progress to Date

Support and progress monitoring of the Burt-on-line Project is maintained through monthly team meetings, latterly taking place via the videoconferencing facility. A wider audience to the project's theme was engaged when the author was invited to present the 'Burt-on-line' innovation to an arguably international audience at the 'Making that Difference – Sharing Good Practice' conference, sponsored by the, then, School of Nursing and Midwifery and The West Midlands South Workforce Development Confederation in Birmingham on June 29th 2001. This audience contained delegates from the International Exchange Programme partnership institutions in Amsterdam and Finland, with whom the School of Health have student-exchange agreements. An active videoconference link-up was considered for exploration with the two institutions which boast videoconferencing technology as a normal part of their educational activity. A third partner institute in Prague has yet to develop the use of such technology in its education programme.

The award of funding to support the project from the University's Learning and Teaching Strategy in June 2001, has offered some financial security to the innovation.

During July 2nd - 4th 2001 the author and colleague, Bill Speight attended the '1st DIVERSE International Conference on Video and Videoconferencing' hosted by The University of Derby. The conference introduced delegates to the wider expertise and applications of vc in education, embracing real-time demonstrations of virtual meetings with participating delegates as far away as USA and India. This became an excellent opportunity to witness not only the extreme capability of the facility of videoconference but also the concept of

telepresence; a means by which virtual co-joint interaction can take place through a single vc monitor.

The Outcomes

During the last week of September and first week of October 2001 videoconferencing took place during a pre-registration student group Nursing Informatics module. The two sessions attended by a different group of students within the same cohort entered into debate on the topic of 'Does nursing informatics improve patient care? and secondly 'E-technology and the September 11th NY terrorist attack'. Both sessions were to prove beneficial to the students from the point of view of sharing experiences on such topical issues, not least their impact upon humanity and virtual-meetings with a wider cohort and sampling the use of document-materials prepared and scanned during the conference. At this stage of development each student and lecturer participant is provided with a vc evaluation form to complete following every session to enable a wider review of the facility and its educational purpose.

The use of video-conferencing was now planned for November 2001 where junior first year students, just weeks into the Course, would participate in a self-awareness workshop as part of their 1st Term studies. Sadly, this session was not fulfilled due to the unavailability of a participating colleague.

National and International Links

A link-up to Amsterdam and also Finland health care institutions now seemed imminent having received responses to previous e-mail invitations and enquiries sent out following the June 29th 2001 conference[see above].

Links to our partnership institution in Amsterdam are still in the development stage at the time of writing but there has been much more success with the nursing department at Seinajoki Healthcare Polytechnic Institute[HPI] in Finland. Contact at Seinajoki HPI with IT expert Sammi Perala [previously a Registered Nurse] prepared the foundations upon which the author has been able to establish a permanent working link for maintaining contact with School of Health students who take their elective option in Finland.

Sammi has since co-operated by participating in videoconference workshops offered as part of the Burton centre Health Informatics Conference on March 8th 2002, enabling the delegates in Burton upon Trent to discuss directly the development of the videoconference network in nursing and medical education across the vast continent of Finland. The vc workshops also included a second link-up, this time to Carol Cooper, a Registered Nurse at University of Wales Institute Cardiff, who delivered a synopsis of her work in developing a website devoted to on-line publishing. This part of the workshop was further enhanced by Carol utilising PowerPoint to illustrate her talk.

Contact had previously been established with University of Wales[Cardiff] when a videoconference workshop was arranged for delegates attending the British Computer Society Nursing Specialist Group at the Llandaff campus on September 6th 2001.

Present developments

A wider awareness of the videoconference facility is now developing within the School. Not least, its full and proper utilisation in the delivery of the Term 1 'self-awareness' workshop session (see above)_on April 10th 2002. This has been followed by a revision of the School's Course Implementation meetings, now held by vc to enable better access and therefore wider availability to Lecturers across all sites.

The smaller Branches (Child / Mental Health programmes) within the School are looking to review some of their respective classroom delivery sessions, following prompts by students. These Branch Programmes, having devolved a tradition of being centrally based at Walsall Manor Hospital site, necessitate Burton based students travelling daily to access the remainder of their course provision. Greater equity and less time in transit are worthy considerations of this student initiative.

Benefits

The obvious benefits of reduced travel time are apparent where delivery of concurrent sessions on different sites can be facilitated through videoconference. Wider access and participation in Course business meetings and also taught sessions (Pre / Post-Registration Programmes) is becoming evident.

One added factor of reduced 'down-time' due to intersite travel is the opportune time available to attend to pressing business before or following the session / meeting.

Direct benefits have already been evaluated by a recent student attending the Finland exchange programme who identified how programmed vc links reduced the feeling of detachment from 'home' and enabled continuity with existing coursework through tutorials, otherwise denied him.

Perhaps the most significant benefit is, ironically, through the 'self-awareness' workshops which are experiential in themselves; providing 1. the experience of the medium of videoconference.

2. previously unacquainted students, albeit of the same cohort, meeting for discussion. 3. student engagement in discussion of the topic of self-awareness and their own experiences, thus far. An important comment from more than one student evaluating the latest workshop referred to the benefits of 'interaction' between participants; interaction is not necessarily a word associated with the medium of videoconference.

Evaluation

Virtually every vc session, thus far, has been evaluated or evaluation sought by the author from participants. The student groups have returned their evaluation documents with consistency but other participants offered the option to respond ad libitum have not been as consistent.

Two approaches to evaluating have been utilised; firstly the 'student form' has four structured questions [Appendix 1] to elicit quantitative and qualitative responses to perceived learning that has taken place and equally important, the preparation and social climate experienced by the student during the videoconference. The second approach, for participating lecturers and conference delegates has been the SWOT analysis [Appendix 2]. This approach has attempted to elicit qualitative elements of the vc experience. In both examples of evaluation the purpose has also been to seek projections on how to better facilitate future vc sessions.

In summary, what has been identified from evaluation by students and other participants respectively is a. preparation of students has some bearing on how easily individuals integrate with the medium of videoconferencing. b. candidates have, indeed, felt inclined to contribute to the session attended. c. the conference has contributed to the learning process, not least by bringing a geographically wider audience to the discussion.

In the SWOT analysis both the categories of 'strengths' and 'opportunities' elicited responses relating to time-saving and reduction in travel incurred. What is most evident

and [possibly] predictable is the unease some respondents have, initially, with 'seeing themselves on camera'.

Clearly, there is a threat inherent with any innovation, especially that involving e-technology and a common concern expressed was that of feeling overwhelmed by the thought of having to manage a videoconference and the risks of technical breakdown.

Future developments

As the Project concludes its inauguration within the School a variety of future developments are proposed. One that may appear surprising is a change to the name of the innovation. The title 'Burt-on-line' is seen to be too exclusive seeing as the project is an outreach to the School at large. The project exists also to encompass other schools within the University as well as external agencies.

The project is to be incorporated as an adjunct to the School's distance - learning activity with the Post-Registration nursing courses currently being accommodated. This might also extend to bringing specialists 'into the classroom' via hospital Trusts, where complementary technology exists.

Videostreaming of the main School sites, following the new-build programme is a desirable development, enabling synchronous links in real time between the geographically distant locations.

The already established vc facility to international exchange students requires the development of links to become part of their programme detail. This is currently in process for the Finland exchange but requires further planning to establish the link to Amsterdam and also Prague, as technology permits.

As the new-build programme affecting the School's accommodation develops there is opportunity to incorporate a dedicated conference studio and also have installations that bring data projectors on-line, enabling links and videostreaming directly to the classroom.

The most necessary development, given that the above should come to fruition, is new, more modern, equipment along with staff development. Given the concerns expressed from evaluation of the project thus far, and the nature of the existing equipment, a programme is now necessary to encourage more lecturers and support staff to seek the benefits of videoconferencing in their own field of teaching and management. The best way, as always, is simply by using the equipment. Until completion of the School's new accommodation, this may prove less tempting at present.

Acknowledgements

The author would like to extend a sincere thank-you to the 'Burt-on-line' Team who have been instrumental in enabling discussion and providing technical expertise in support of this project.

A thank-you also to those School colleagues who have contributed not only to past videoconference events but have taken time to provide written feedback when requested.

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Appendix 1**Burt-on-line videoconference project**
Evaluation of video conferencing activity

Session attended:-

Date of session:-

Centre attended: **Burton or Boundary House** [please circle]

Please answer the following questions after the video conferencing [VC] session

1. Were you briefed on the basic principles of VC, before participating?
Please comment:-

2. Did you feel able to participate in the VC session, even if you chose not to actively contribute? Please comment:-

3. Following this VC session what do you feel you have gained from the subject discussed? Please comment:-

4. Finally, please offer **any** constructive comments on the use of VC in facilitating learning.

Thank you for your contribution

pamprint rev 4/2002

Appendix 2

Burt-on-line videoconferencing project

Delegate evaluation form

Meeting attended:-

Date:

Centre attended:- **Burton** or **Boundary house** [please circle]

Please offer a SWOT analysis of the videoconference

Strengths:-

Weaknesses:-

Opportunities:-

Threats:-

Thank you for your contribution

panprint rev 4/2002